

**REMARKS**

Applicants respectfully request reconsideration of this application in view of the amendments made above and the remarks contained herein.

**I. STATUS OF CLAIMS**

Upon entry of this amendment, claims 1, 3 and 4 will be pending in this application. Claims 6, 7 and 13-21 have been canceled without prejudice to, or disclaimer of, their subject matter.

Claims 1 and 3 have been amended. Support for the amendment to claim 1 may be found throughout the specification and at least at page 3, lines 14-22.

No new matter has been added.

**II. PROVISIONAL OBVIOUSNESS DOUBLE PATENTING REJECTION**

The Examiner has provisionally rejected claims 13 and 15-21 on the grounds of nonstatutory obviousness-type double patenting over claims 15 and 16 of copending application Serial No. 11/267,833 in view of Kroneld (USPN 4,635,379). Claims 13 and 15-21 have been canceled, and this (provisional) rejection is rendered moot. Applicants make no admissions with this cancellation of claims.

For at least this reason, this rejection should be withdrawn.

**III. OBVIOUSNESS REJECTIONS**

The Examiner has rejected claims 1, 3 and 4 under 35 USC § 103(a) as obvious over Kroneld (USPN 4,635,379). Further, the Examiner has rejected claims 1, 3 and 4 under 35 U.S.C. § 103(a) as obvious over Noreus (USPN 4,592,804) in view of Prough (USPN 5,547,546), Kroneld (USPN 4,635,379) and Malkov (Studies on Liquid Penetration into Softwood Chips - Experiments, Models and Applications). Applicants respectfully traverse this rejection for the reasons given below.

Claim 1 has been amended to recite, *inter alia*, a step of adjusting the advancing of the composed bed through the gas removal section within a time period allowing the temperature of the composed bed to be maintained at approximately the temperature reached in step b by introducing steam beneath the composed bed at the most 30% of the steam supplied to whole apparatus.

According to an embodiment of the presently claimed invention, at least 70% of the total enthalpy of the supplied steam is now introduced at the beginning of the process before the comminuted lignocellulose material advances a composed bed through the horizontal gas removal section. Then, the heated material is simply kept at the selected elevated temperature for the necessary retention time by only up to 30% of the total steam energy added to the process.

Kroneld does not disclose or suggest the presently claimed invention. Kroneld only discloses passing steam through the bed in the horizontal section. See column 2, lines 49-53 ("Drying steam fans 11 feed superheated steam beneath the advancing grate, from where the steam is pressed through the grate into the fuel bed. ***The steam can pass only through the fuel bed [4]***, because it is prevented by two longitudinal strips 12 to leak past the bed sides."). There is no disclosure or suggestion to arrive at the presently claimed invention. Kroneld is heating (raising the temperature of) the mass in the bed, and not just keeping the selected elevated temperature, let alone just maintaining the temperature with only up to 30% of the total steam energy added to the process.

Accordingly, Kroneld does not render the presently claimed invention obvious.

Further, Noreus does not disclose or suggest the presently claimed invention. Noreus is focused on increasing the temperature in down-stream processing on the bed. See column 2, lines 14-15 ("the temperature of said material increases in the direction of chip advancement...."). There is no disclosure or suggestion to arrive at the presently claimed invention. Noreus is heating (raising the temperature of) the mass in the bed, and not just keeping the selected elevated temperature, let alone just maintaining the temperature with only up to 30% of the total steam energy added to the process.

Accordingly, Noreus does not render the presently claimed invention obvious. And, Prough, Kroneld and Malkov do not remedy the deficiencies of Noreus.

The Examiner has rejected claims 13-21 under 35 USC § 103(a) as obvious over Noreus in view of Prough, Kroneld and further in view of Jonkka (USPN 5,063,981) and Laakso (USPN 4,746,404).

Claims 13-21 have been canceled, and this rejection is rendered moot. Applicants make no admissions with this cancellation of claims.

For at least this reason, this rejection should be withdrawn.

Each obviousness rejection is respectfully requested to be withdrawn.

**IV. Conclusion**

For at least the reasons stated above, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections and objections, and to allow the present application.

In the event that there are any questions concerning this amendment, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: 8 April 2009

By: \_\_\_\_\_



Travis D. Boone

Registration No. 52,635

P.O. Box 1404  
Alexandria, VA 22313-1404  
703 836 6620